What is claimed is:

1. A method for implementing a passive navigation system for an air vehicle which comprises the steps of:

providing a database for a plurality of emitters, wherein the database includes information regarding the geolocation of each emitter in the database, and information regarding at least one characteristic operating factor contained in signals transmitted by a respective emitter;

receiving a signal from at least one emitter;

isolating the signal received from the emitter;

processing the received signal using operating factor information in the database to establish an identity for the emitter;

evaluating the geolocation information for the identified emitter in the database to estimate a direction of arrival for the air vehicle to the identified emitter; and

using the emitter identity and direction of arrival to determine a course location of the air vehicle for use in navigation.

2. A method as recited in claim 1 wherein a plurality of signals are received in the receiving step and each signal from a respective emitter is separated from other received signals in the isolating step.

3. A method as recited in claim 1 wherein the geolocation information includes a latitude, a longitude and an altitude (height) for respective emitters.

4. A method as recited in claim 1 wherein the operating factor information includes frequency, bandwidth, waveform and signal strength data.

5. A method as recited in claim 4 wherein the processing step comprises the step of scanning the operating factor information for a range of frequencies.

6. A method as recited in claim 4 wherein the processing step comprises the step of extracting emitters having signal strengths below a predetermined threshold.

7. A method as recited in claim 1 wherein the receiving step is accomplished passively.

8. A method as recited in claim 1 wherein each emitter is an emitter-of-opportunity.

9. A method for determining position information for an airborne platform, said method comprising the steps of:

pre-programming a computer database with signal information for a plurality of signals from a respective plurality of stationary ground based emitters;

receiving a signal from said plurality of stationary ground based emitters, wherein said signal is selected from the group of signals consisting of a communication signal and a radar signal; and

comparing said received signal to said pre-programmed signal information in said database to determine position information for the airborne platform.

10. A method as recited in claim 9 wherein said signal information is selected from the group of signal information consisting of frequency, bandwidth, waveform, signal strength, site-specific terrain scattering information and combinations thereof.

11. A method as recited in claim 9 further comprising the steps of:

pre-programming said computer database with an emitter geolocation for each said stationary ground based emitter;

determining a direction of arrival (DOA) for said received signal;

and wherein said step of comparing said received signal to said signal information in said database is used to determine said emitter geolocation for said received signal and said position information for the airborne platform is determined relative to said emitter geolocation for said received signal using said DOA.

12 A method as recited in claim 9 wherein said emitter geolocation includes a latitude, a longitude and an altitude.

13. A method as recited in claim 9 wherein said received signal generates scattered signals, said signal information comprises site-specific terrain scattering information, and said comparing step matches said scattered signals of said received signal with said site-specific terrain scattering information to determine position information for the airborne platform.

14. A method as recited in claim 9 wherein said communication signal is selected from the group of communication signals consisting of a television broadcast signal, an FM radio broadcast signal, a cellular phone system signal and a personal communications system (PCS) signal.

15. A passive navigation system for an airborne platform, said system comprising:

means for receiving a plurality of signals from a respective plurality of stationary ground based emitters located at a plurality of respective geolocations with at least one said received signal selected from the group of signals consisting of a communication signal and a radar signal;

a computer positioned on said platform, said computer having a database pre-programmed with each said emitter's geolocation and at least one signal identification characteristic for each said signal;

a means for selecting at least one signal from said received signals and determining a direction of arrival (DOA) for each said selected signal;

a means for comparing each said selected signal to said preprogrammed signal identification characteristics in said database to determine a signal emitter geolocation for each said selected signal; and

a means for using each said signal emitter geolocation and each said DOA to estimate a geolocation for the airborne platform.

16. A passive navigation system as recited in claim 15 wherein said at least one signal identification characteristic is selected from the group of signal identification characteristics consisting of frequency, bandwidth, waveform and signal strength.

17. A passive navigation system as recited in claim 15 wherein said receiving means comprises an antenna array having a plurality of antenna elements.

18. A passive navigation system as recited in claim 15 wherein said database is pre-programmed with site-specific terrain scattering information for at least one said emitter signal, said terrain scattering information for use by said selecting means to select signals having a predetermined RF characteristic.

19. A passive navigation system as recited in claim 15 wherein each said emitter's geolocation includes a latitude, a longitude and an altitude.

20. A passive navigation system as recited in claim 15 wherein at least three received signals are selected by said selecting means.

21. A passive navigation system as recited in claim 15 wherein said system further comprises a means for converting said selected signals into a digital complex data stream for use by said comparing means.

22. A passive navigation system as recited in claim 15 wherein said communication signal is selected from the group of communication signals consisting of a television broadcast signal, an FM radio broadcast signal, a cellular phone system signal and a personal communications system (PCS) signal.